

therapeutic employment of the remedy is therefore free from any irritant effects. The sulphur seems to be combined to form an organic compound, and is capable of exhibiting its properties in the most beneficial form.

Alkaline salts of thiolinic acid have been prepared, and differ from the mother substance by being soluble in water. The sodium salt is considered to be most suitable for therapeutic use. It occurs in commerce in the form of a powder and also in aqueous solution.

It is, of course, impossible to predict at this early date what kind of stand this new preparation will make against ichthyol, a body which has now been in the field for several years, and has been used with such great success. Up to the present no authoritative results of experiments have been published, and though it is expected that it will display the same therapeutic action as, or at any rate, similar to ichthyol or thiolin, these anticipations will have to be realized by practical trial before it can take a permanent stand in the list of dermatological remedies.

The practical absence of odor of the alkaline salts is in their favor, only a very slight bituminous odor being discernible; thiolinic acid itself has but little smell, and that is rather suggestive of mustard oil.

OXYCHINASEPTOL.

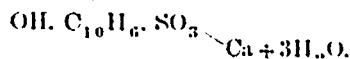
The introduction of "kairin" by O. Fischer as a synthetical substitute for quinine first drew general attention to the importance of the oxy-chinoline series as a source from which many new organic compounds of great pharmacological interest might be prepared and placed at the disposal of the physician. The first offspring of the new alliance proved, however, to have bad habits in spite of its promising appearance, and the arrival of other antipyretics banished chinoline products for a time from the experimental field. The description of a new antiseptic, oxychinaseptol or diaphtherin, by Professor R. Emmerich, serves to recall, however, the theoretical advantages that are combined in the chemical constitution of the oxychinolines, which may be regarded as bases with some of the characteristics of phenol in virtue of the hydroxyl group in their molecule. Though increased complexity of chemical structure renders it more difficult to predict the value of changes brought about by the introduction of fresh groups into the molecule, previous experience has led to the conclusion being drawn with respect to the connection between chemical constitution and antibacterial action, that the introduction of a side group into the benzene nucleus of a phenol generally increases the antiseptic value and diminishes the corrosive action. Carbolic acid has therefore, on account of its corrosive poisonous nature, been replaced as an antiseptic by its milder, and yet more effective methyl derivatives, the cresols; and in the oxychinolines the good effect is further increased by the substitution of a pyridyl

for a methyl group. But the idea admits of further expansion, since theoretically the antiseptic value of the oxychinolines may be further increased by suitable combinations. The phenolsulphonic acid has already earned a reputation as an antiseptic under the name of aseptol, and the corrosive quality of carbolic acid has also been diminished by the introduction of the sulphonyl group, so that it is not strange that a very energetic antiseptic should result from its labile combination with two molecules of B oxychinoline, a condensation to which all phenols are very prone in the presence of certain reagents. Whether the combination actually takes place between the hydroxyl and sulphonic groups of aseptol and the two nitrogen atoms of the chinolines, as represented by Professor Emmerich, is an assumption that can scarcely be accepted without the production of further data.

ASAPROL.

The already extensive array of antiseptic agents has recently received an addition under the name of asaprol, which is chemically B-naphthol-X-monosulphonate of calcium, and which is said to display marked antiseptic and germicidal action.

The compound may be prepared, according to Claus, by heating together one part of X-naphthol, and two parts of sulphuric acid at 100 C. for two hours, and then neutralizing with calcium carbonate. It occurs in small acicular crystals having the formula:—



These are readily soluble in water, but less so in alcohol.

A series of experiments with the body has shown it to be destructive to micro-organic life, a five per cent. solution completely preventing the growth of cultivations of the microbes of Asiatic cholera, typhus, and others; while at the same time doses of 0.1 gram. per day, given to dogs, proved to have no toxic action.

SARSAPARILLA CONSTITUENTS.

Although this note is included under the heading of "Newer Remedies," it is not intimated that sarsaparilla or any of its isolated active principles are making their *debut* in the realm of medicine. It is anticipated, however, that the more general use of the drug will be revived by the researches that have been recently made with it, and for this reason mention is reasonably expected in this column. Though of late years the amount of sarsaparilla consumed has not been relatively as large as formerly, yet the quantity still used in England and Continental countries is very great, it being as popular as a domestic medicine as ever it was, while in the form of the compound decoction and extract it still maintains a position in the *armamentum medicamentorum* of the physician.

Of late years it has been chiefly used as a purifier of blood, it being specially indicated in the treatment of syphilis, but a

few records have been left of its employment also, within the last three hundred years, in fevers and other dangerous maladies, with success. In spite of this, however, very little has been known about its active constituents until quite recently, when Professor Kobert and W. v. Schulz announced the results of some investigations carried out by them upon the subject in the laboratory at Dorpat.

Three active principles were isolated, all of a glucosidal nature and closely allied to one another in as far as they were all homologous. Two of these were identical with bodies that had been isolated previously, viz., the *parillin* of Fluckiger and the *smilacin* of Dragendorff; the present investigators, by the way, propose to change the name of the latter body to *sarsaparillaponin*, as more indicative of its constitution. The third body, which they have named *sarsasaponin*, appears to be hitherto unknown, but though it is very similar to the others in its physiological action it is not identical. The formulae of these three homologous bodies helps to show their mutual relationship: *Parillin* $\text{C}_{26}\text{H}_{44}\text{O}_{10}$, *sarsasaponin* $\text{C}_{22}\text{H}_{36}\text{O}_{10}$, and *sarsaparillaponin* $\text{C}_{20}\text{H}_{32}\text{O}_{10}$. On boiling with dilute acids all of them split up into a non-saccharine body like parigenin, and one or more molecules of ordinary dextrose or galactose sugars.

Physiological experiments with small animals, cats, dogs, &c., proved that all of these three bodies caused only local disturbances, such as increased flow of saliva and diarrhea, and were not absorbed into the system. From analogy, therefore, it is assumed that in a healthy state of the human system, no absorption would take place, but that the effect would be chiefly dependant upon the action of the drug on the bowels and alimentary canal.

Injected subcutaneously, all three bodies proved fatal to small animals when given in sufficiently large quantity, *sarsasaponin* being most toxic, *parillin* next, and *sarsaparillaponin* least. The injection was always followed by the formation of a painful swelling, sometimes an abscess. It is interesting to note that the three sarsaparilla glucosides are in many ways similar to mercury, especially in that they both produce motions of the bowels, increase the flow of secretions, and are eliminated by the stomach and intestines.

It is possible that the contradictory results that have been obtained with sarsaparilla may be due to differences in the commercial varieties of the drug, and it would be well, therefore, if a series of experiments were made in the treatment of syphilis and allied disorders with the isolated active principles themselves. By this means the various questions as to the efficacy of sarsaparilla that have been raised of late years might be set at rest, and possibly a more specific remedy be obtained for the troublesome disorders of the blood.—*Brit. and Col. Druggist*.

Jos. Parkinson, druggist, of Winnipeg, Man., is dead.